U.S. Patent Jan. 9, 1996 Sheet 1 of 3 12 FIG.1 PRIOR ART STRAIN (%) 0 DISPLACEMENT V(µm) 0 -1.0**TENSION** -1.0FREE THERMAL **EXPANSION** -2.0-2.0-3.0**COMPRESSION** -9 9 (X) FIG.2 NUMBER OF SOLDER BALLS PRIOR ART 20 22 36 26 30 36 35 -24 34 35 -35

FIG.5

32

44

32

38

28



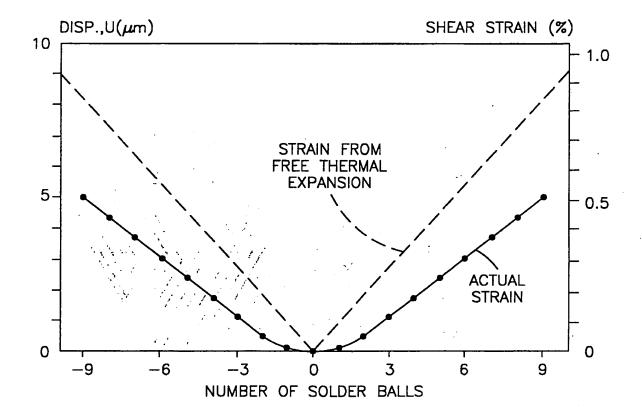


Fig.3
PRIOR ART

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